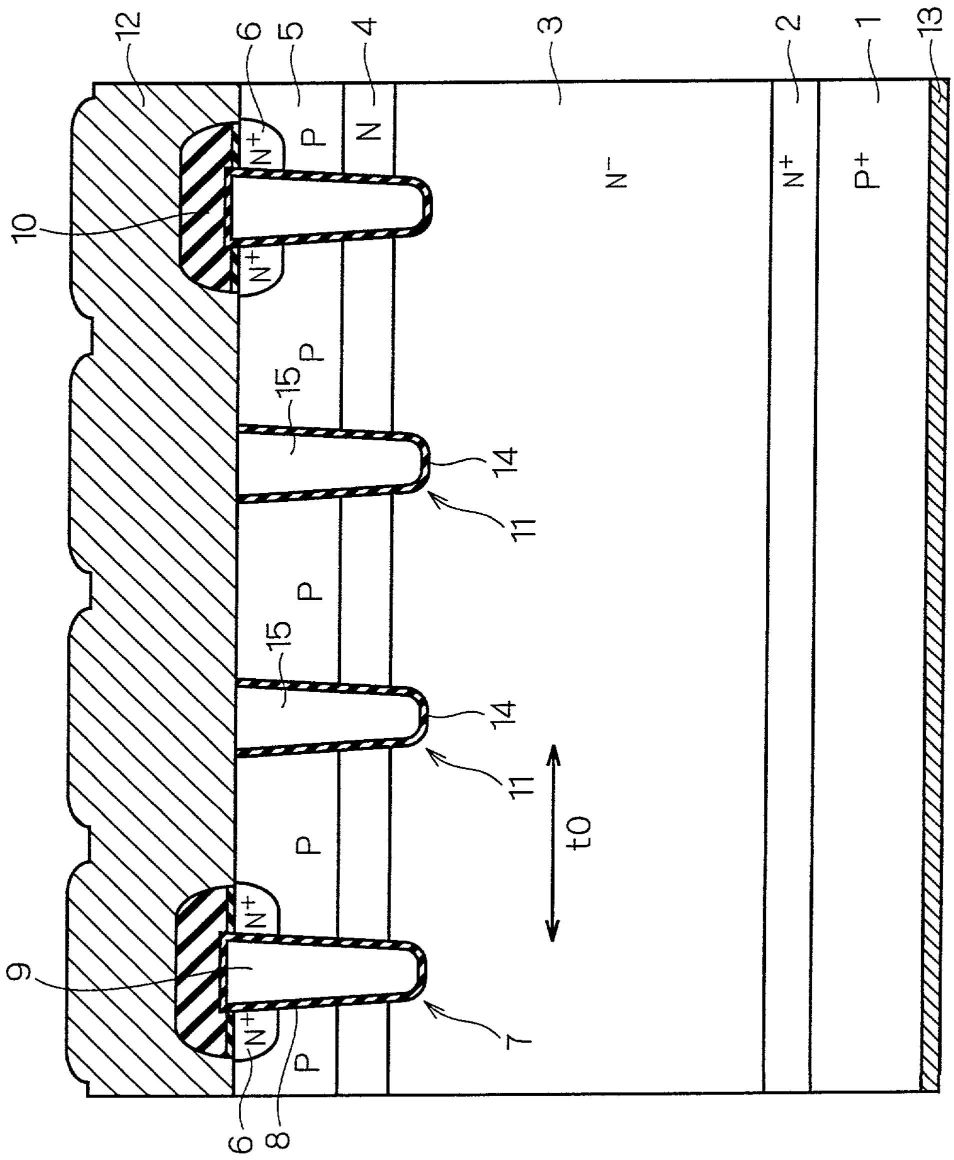
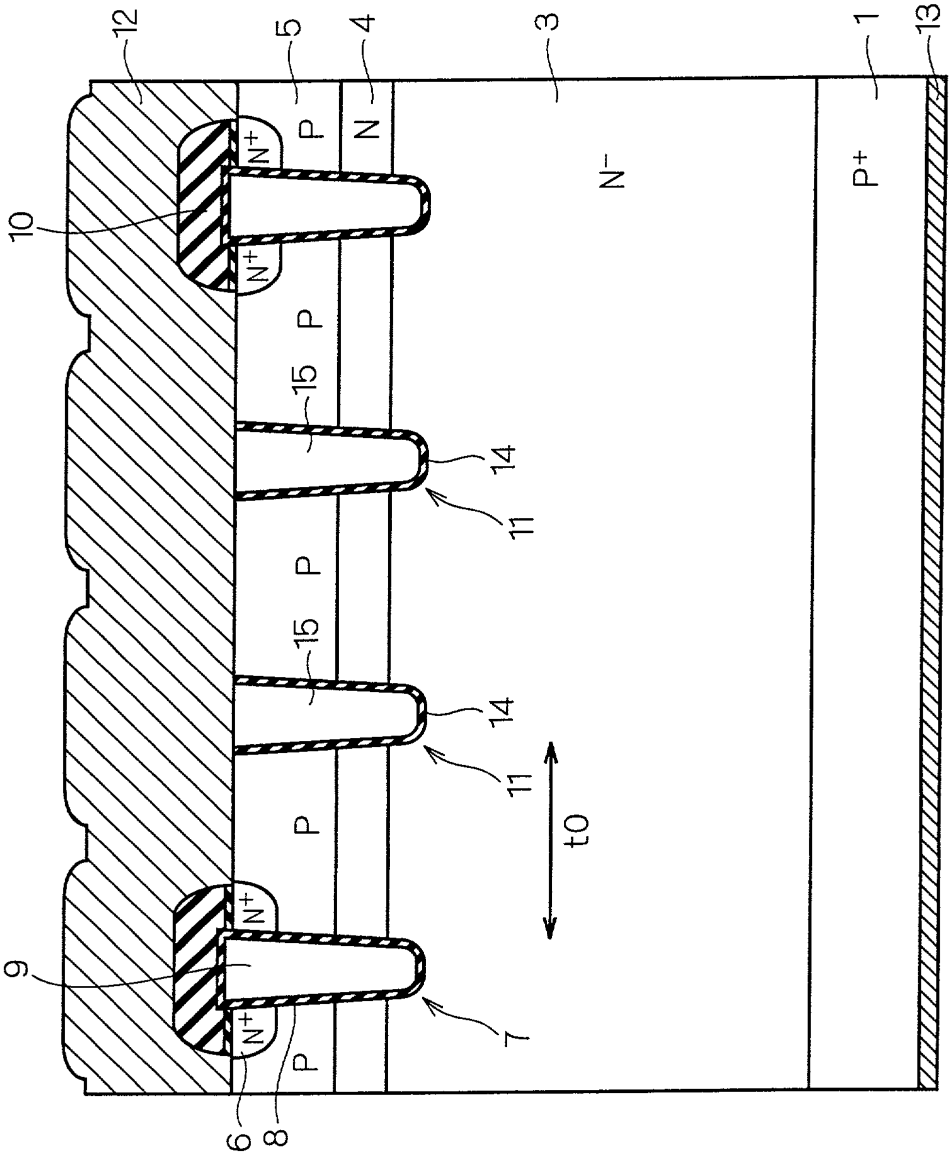
FIG. 1



F I G . 2



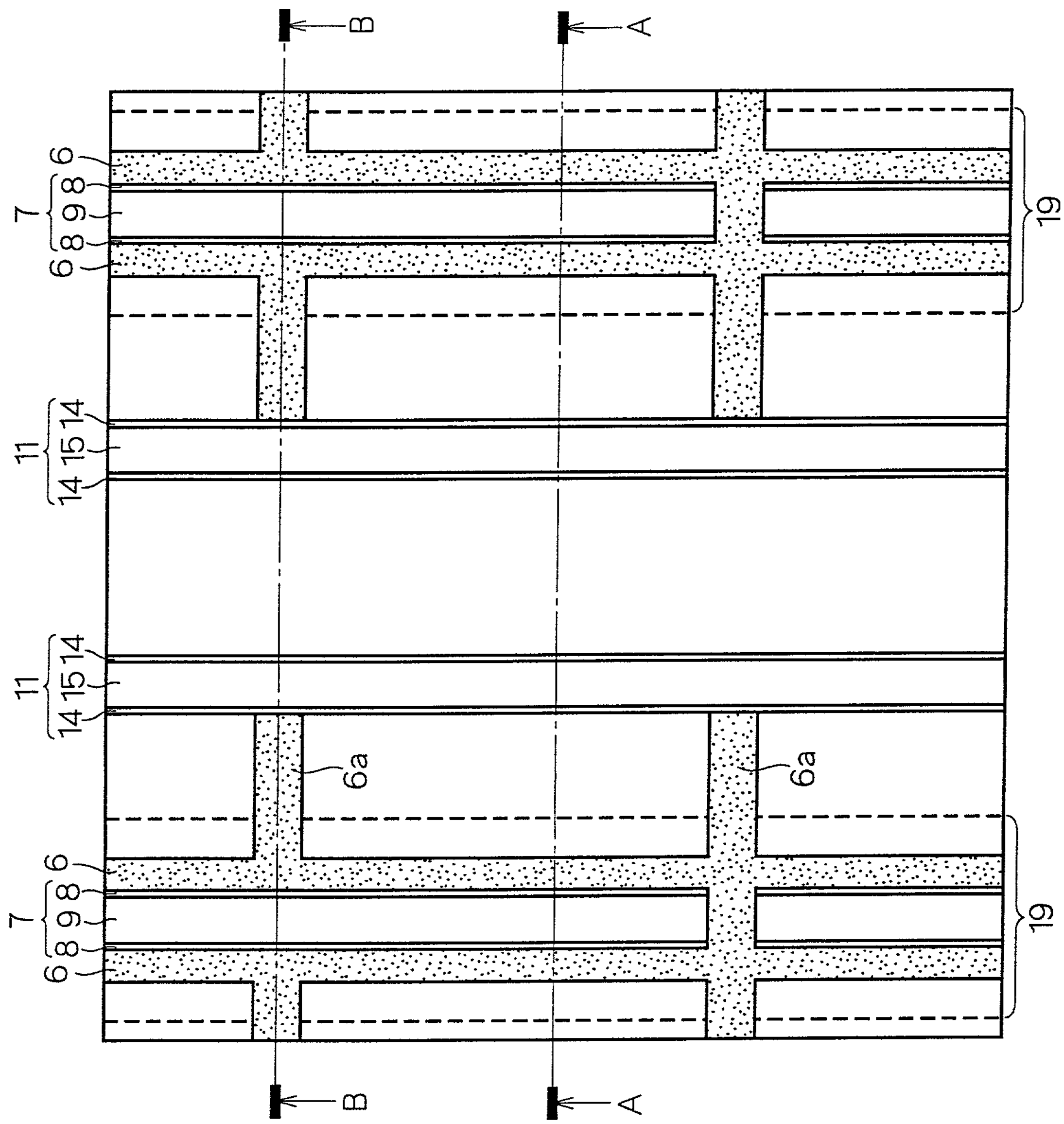


FIG. 3

OBLON, SPIVAK, ET AL
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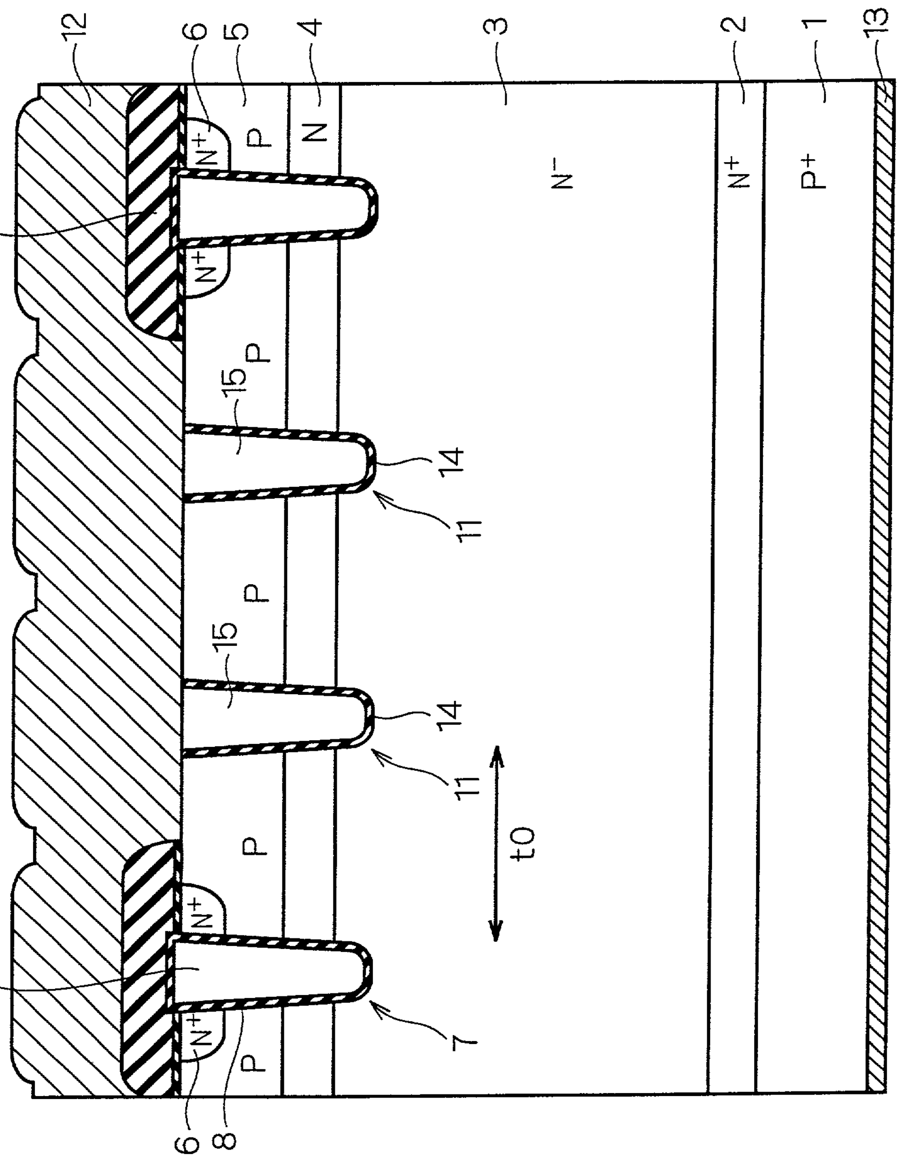
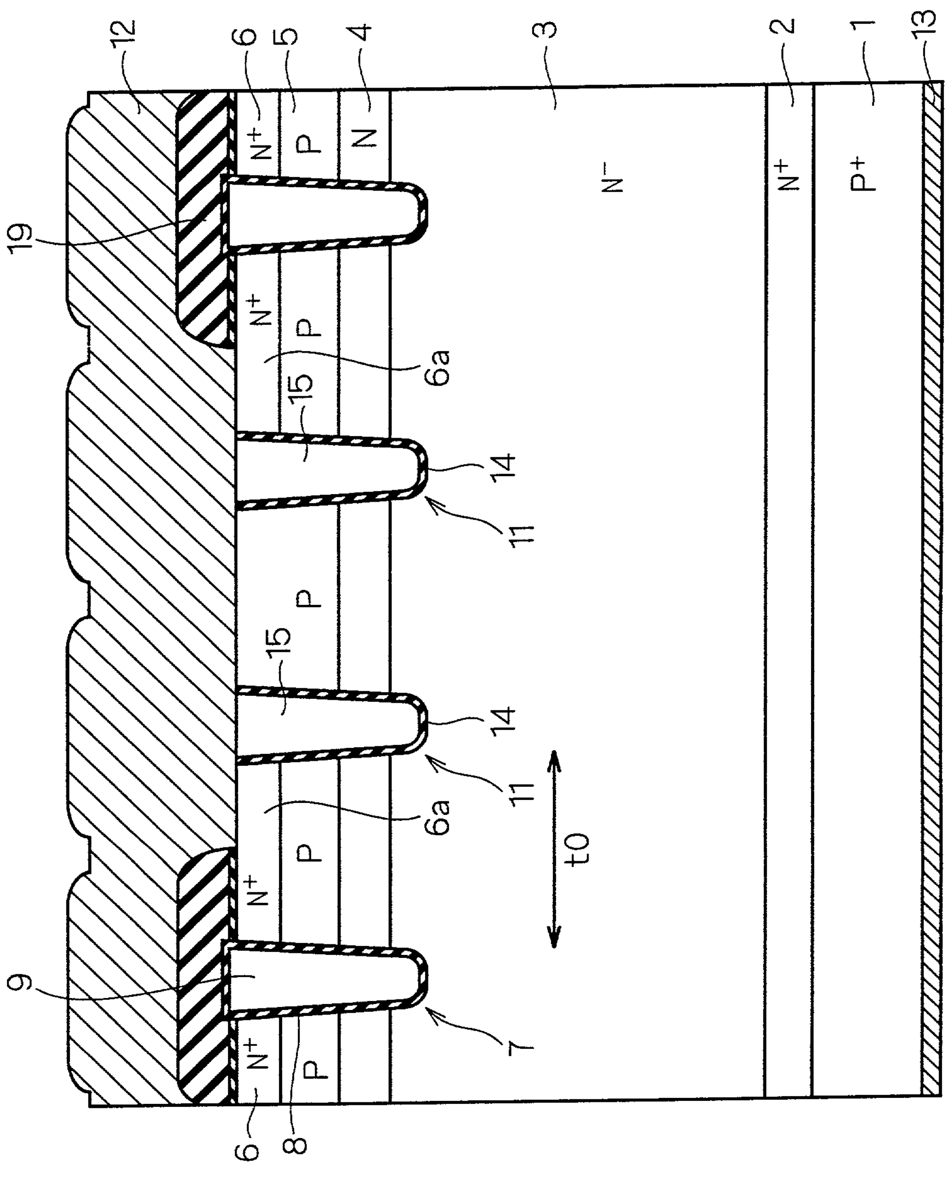
SHEET 4 OF 32



F I G . 4

F I G . 5



OBLON, SPIVAK, ET AL
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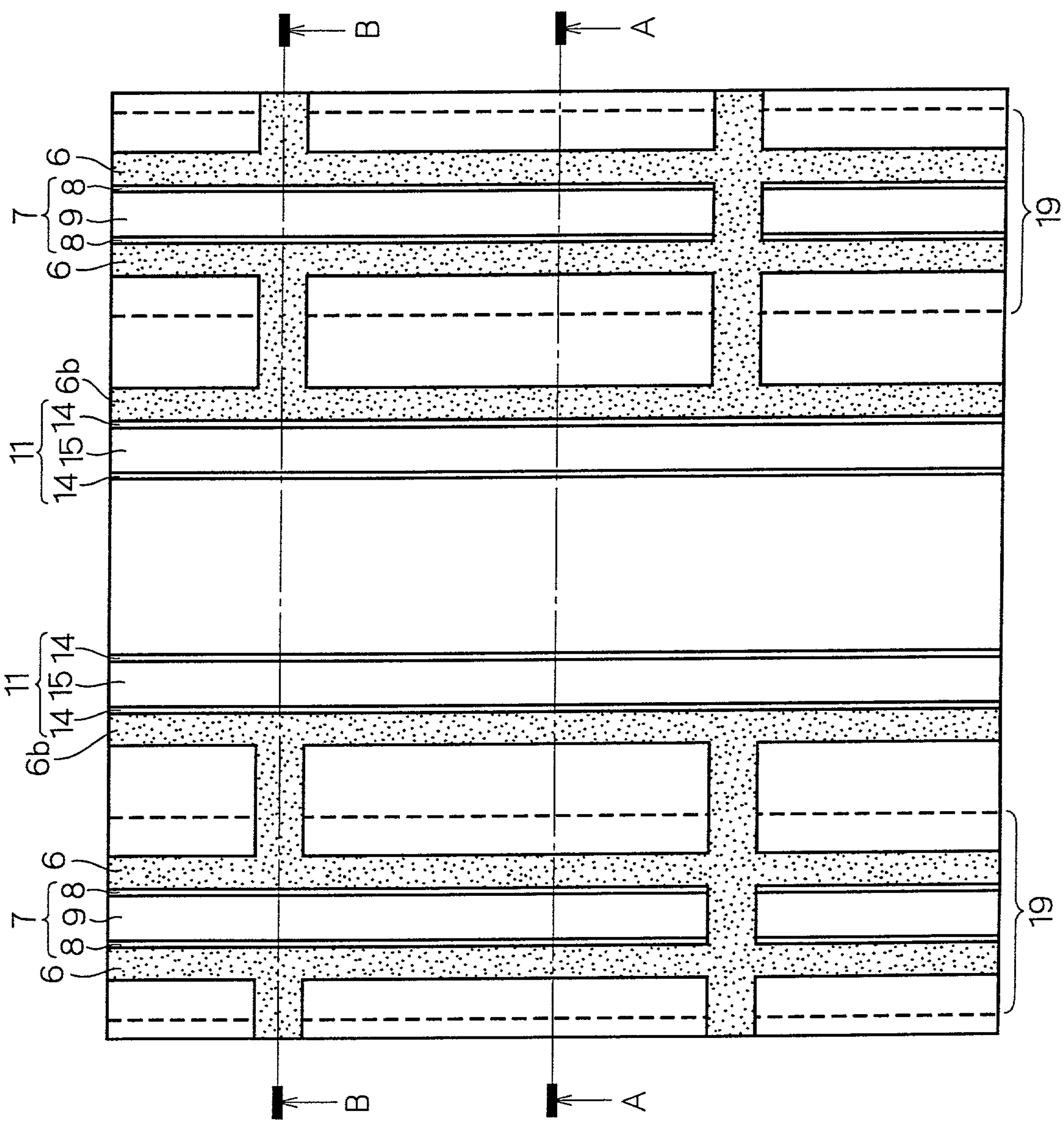
INV: Hideki TAKAHASHI

FIG. 6



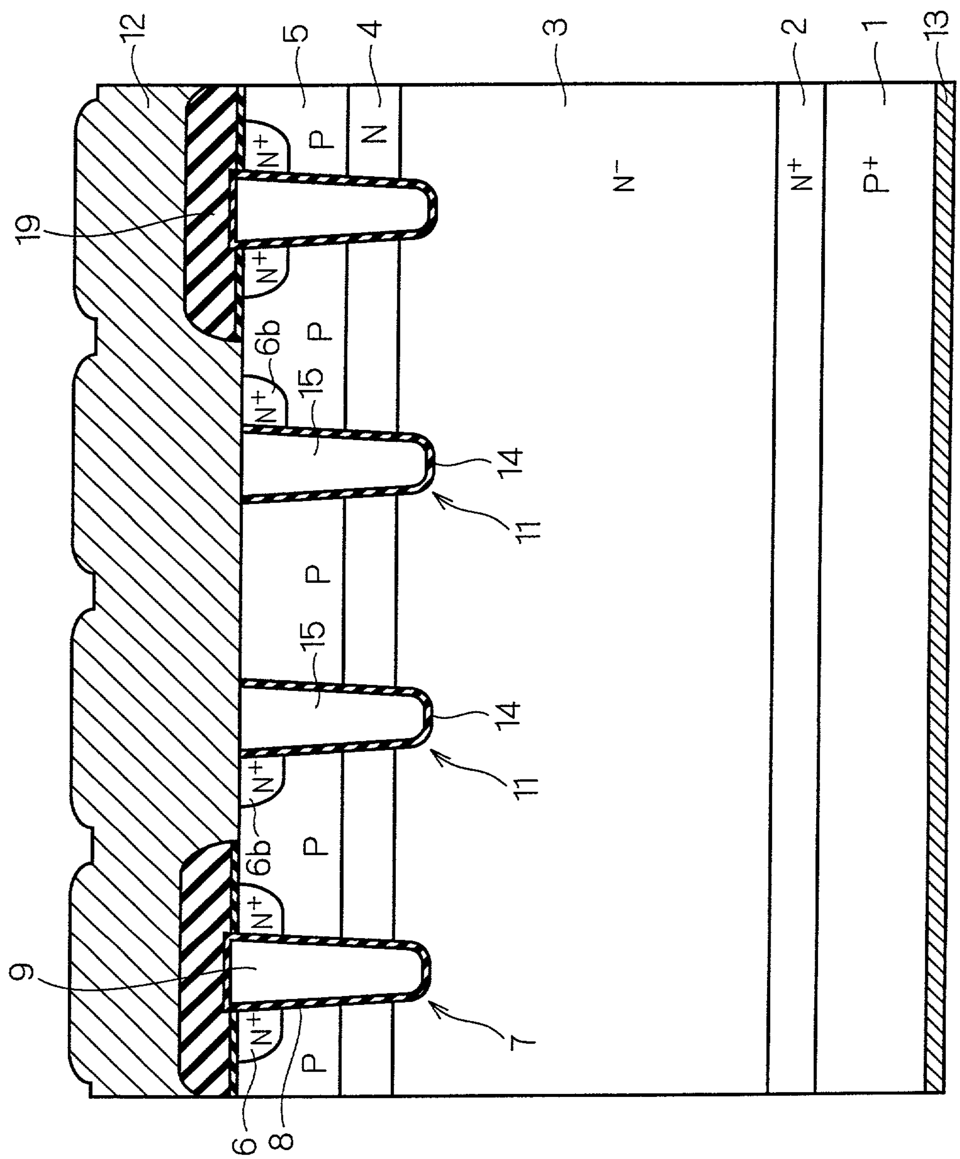


FIG. 7

OBLON, SPIVAK, ET AL
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INV: Hideki TAKAHASHI

FIG. 8

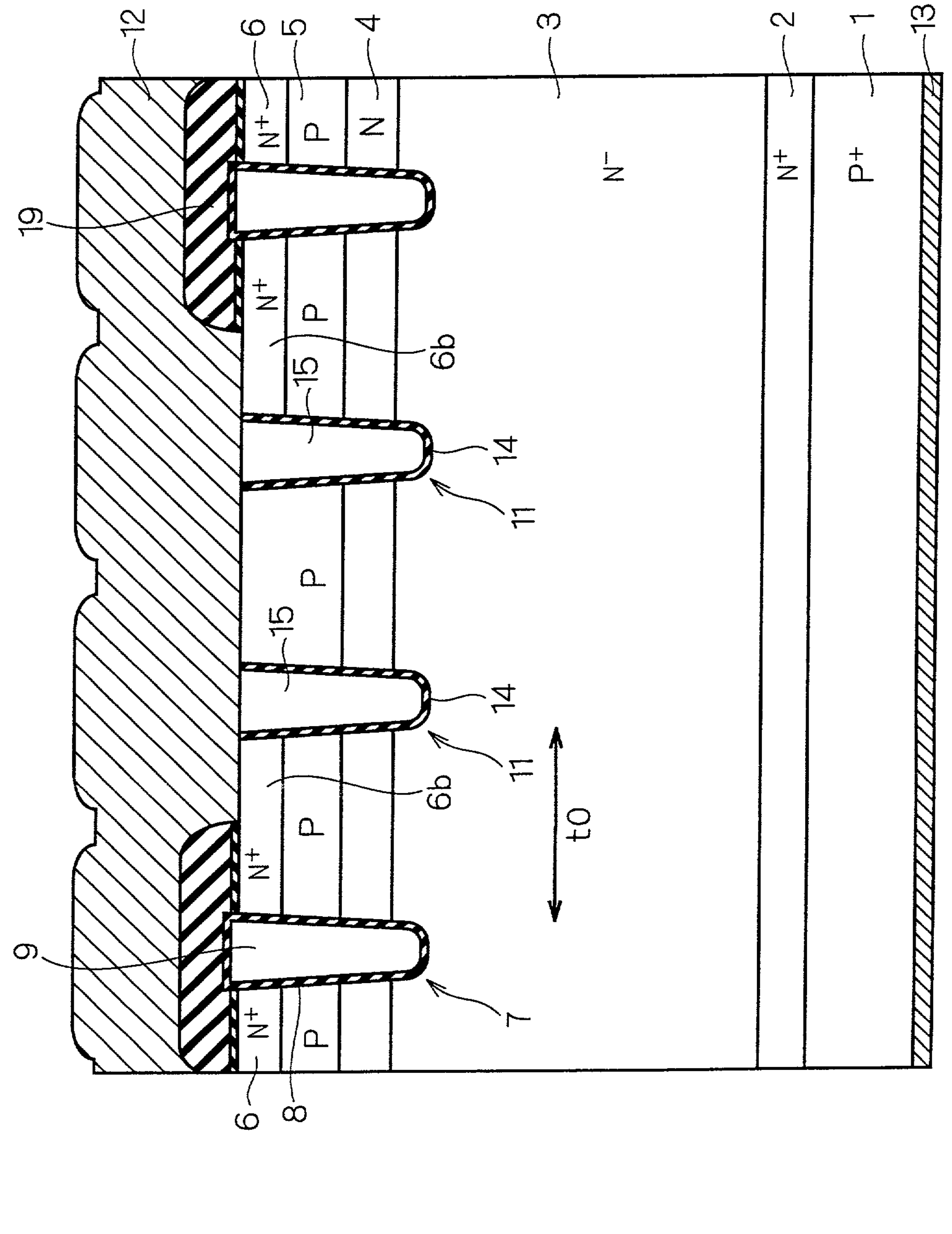


FIG. 9

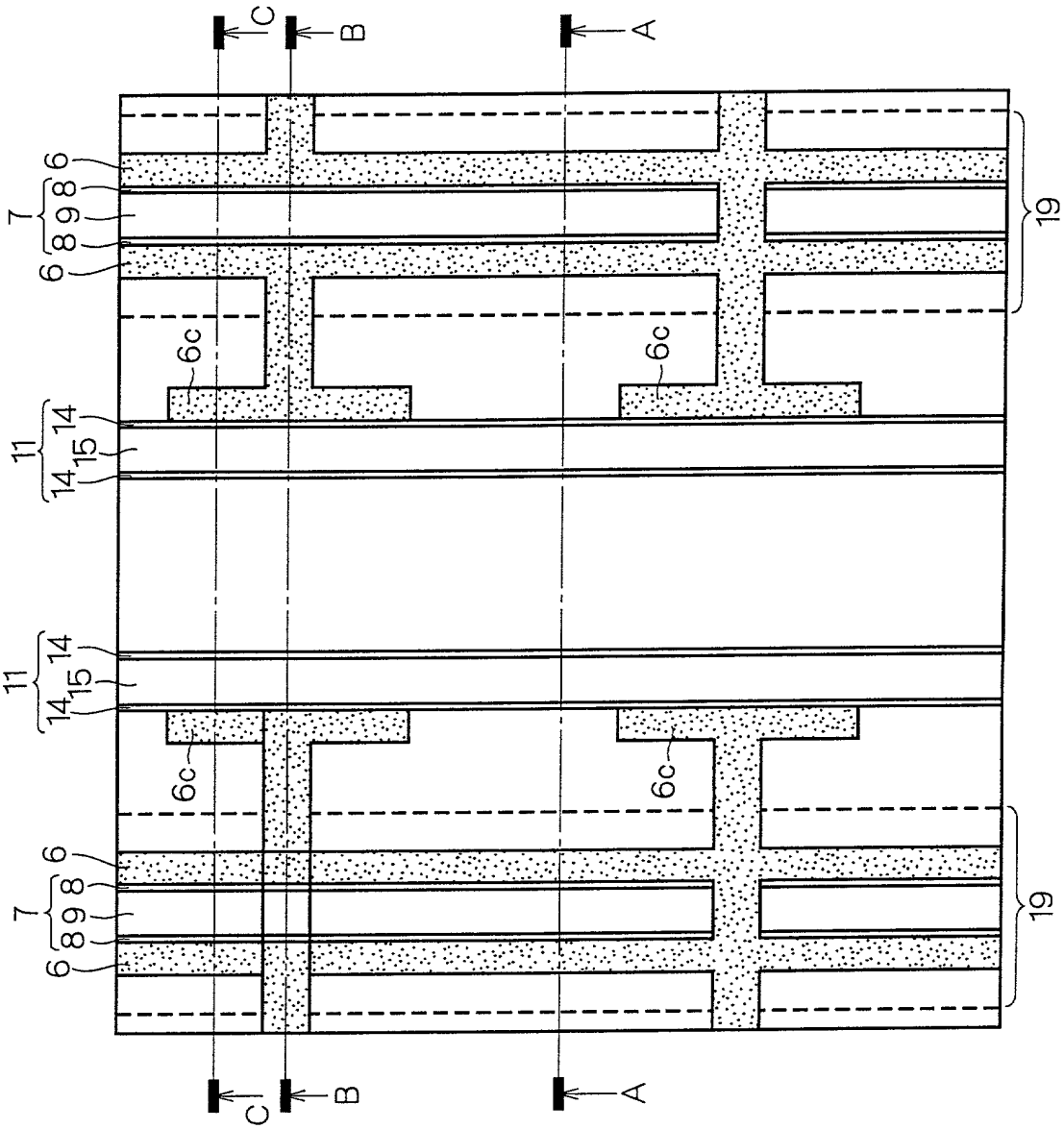


FIG. 10

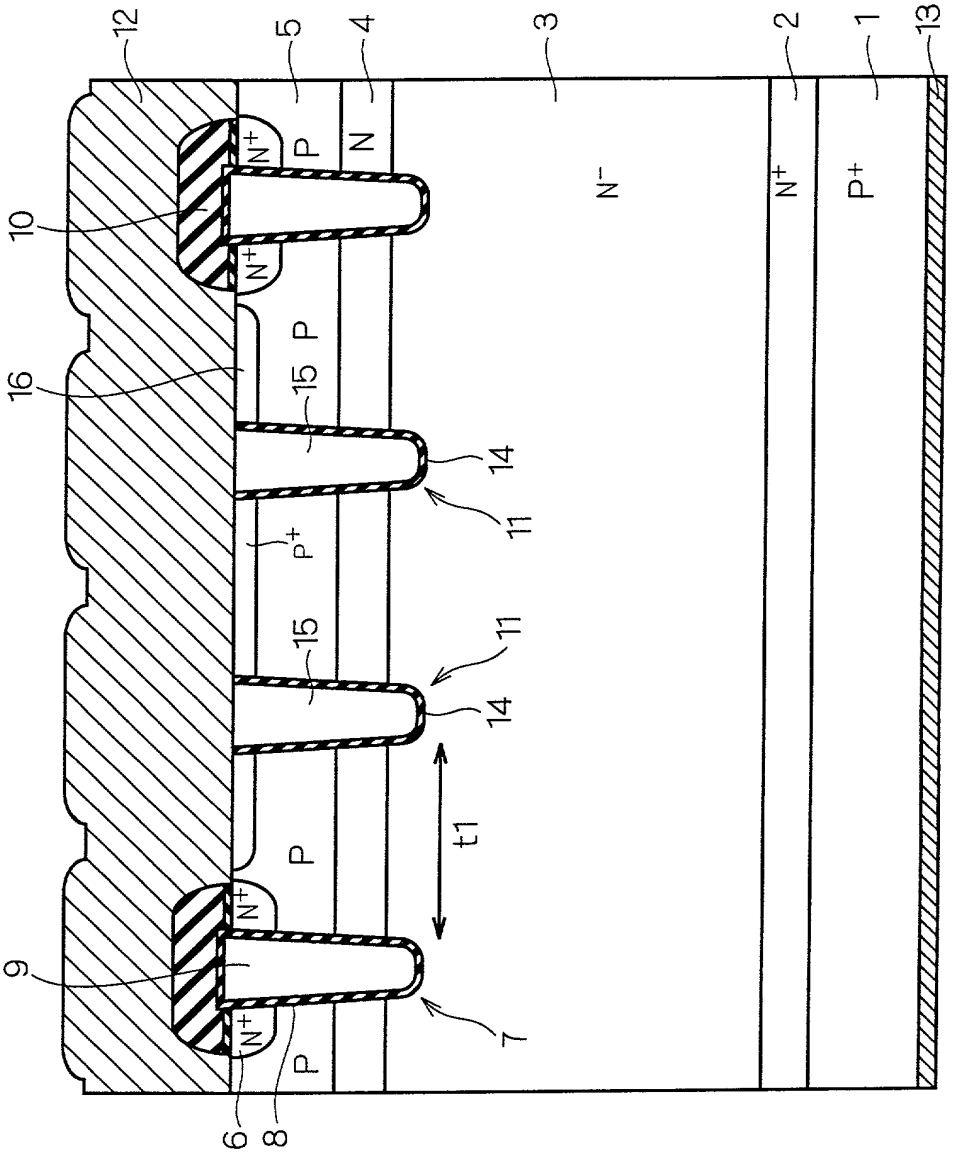
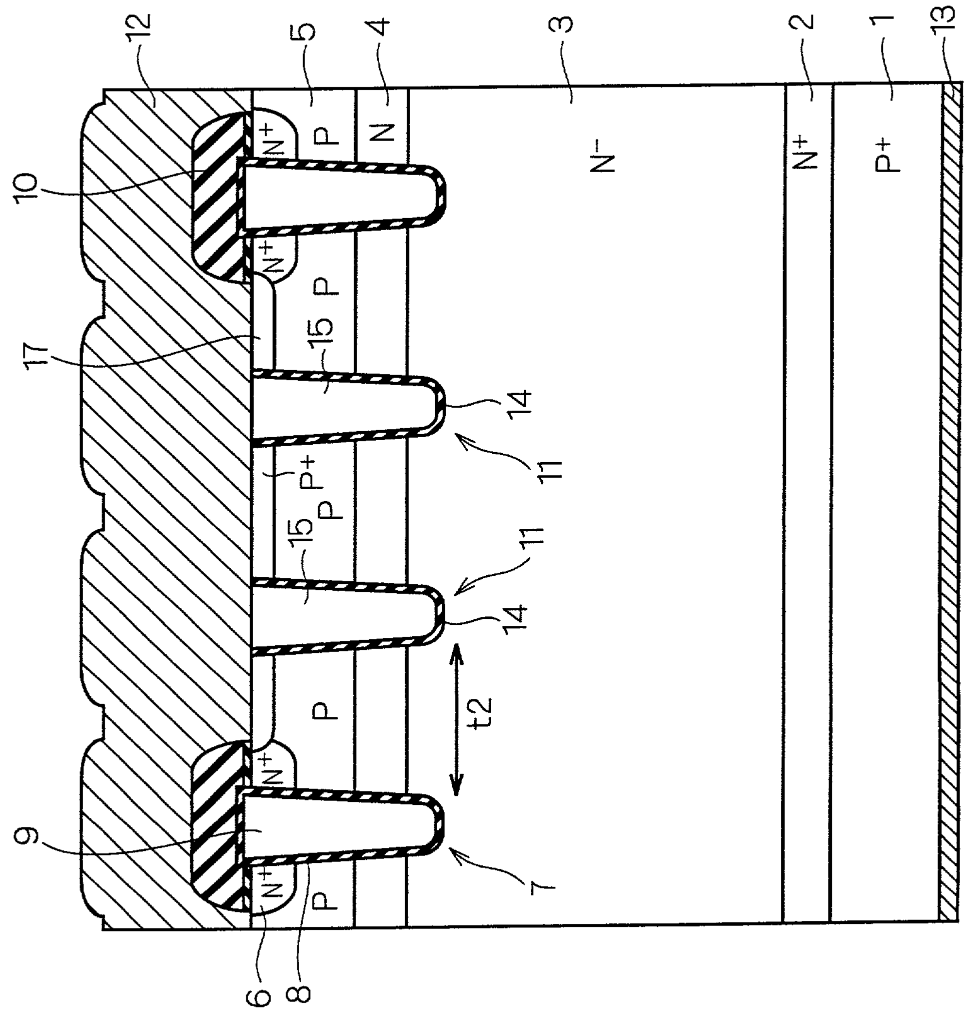


FIG. 11



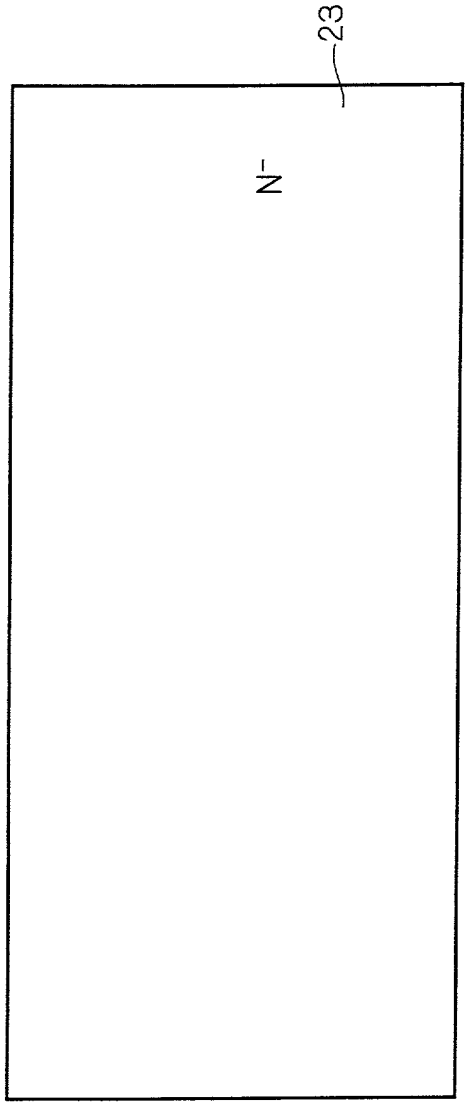
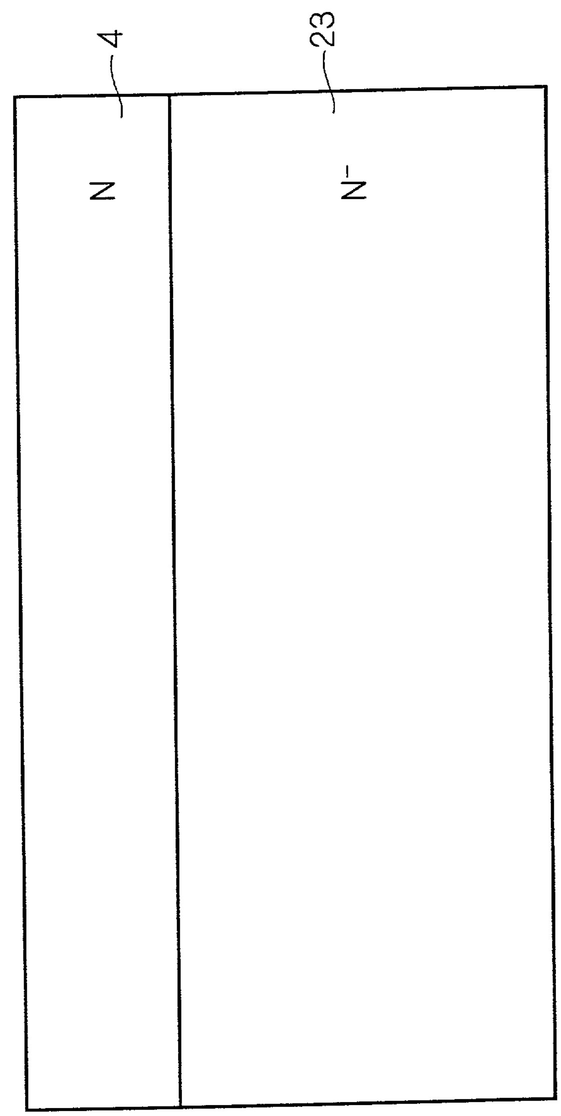


FIG. 12

FIG. 13



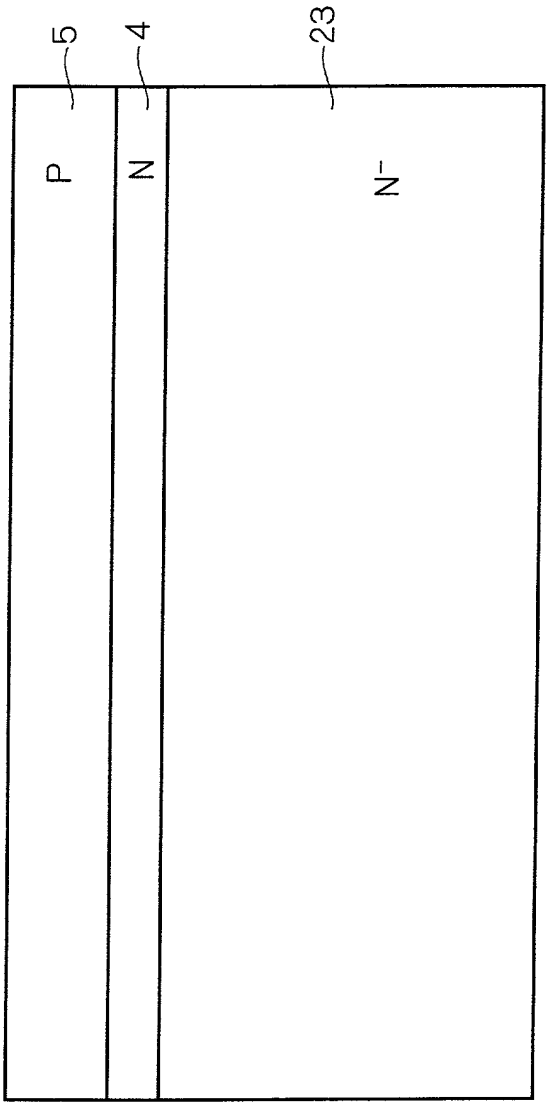


FIG. 14

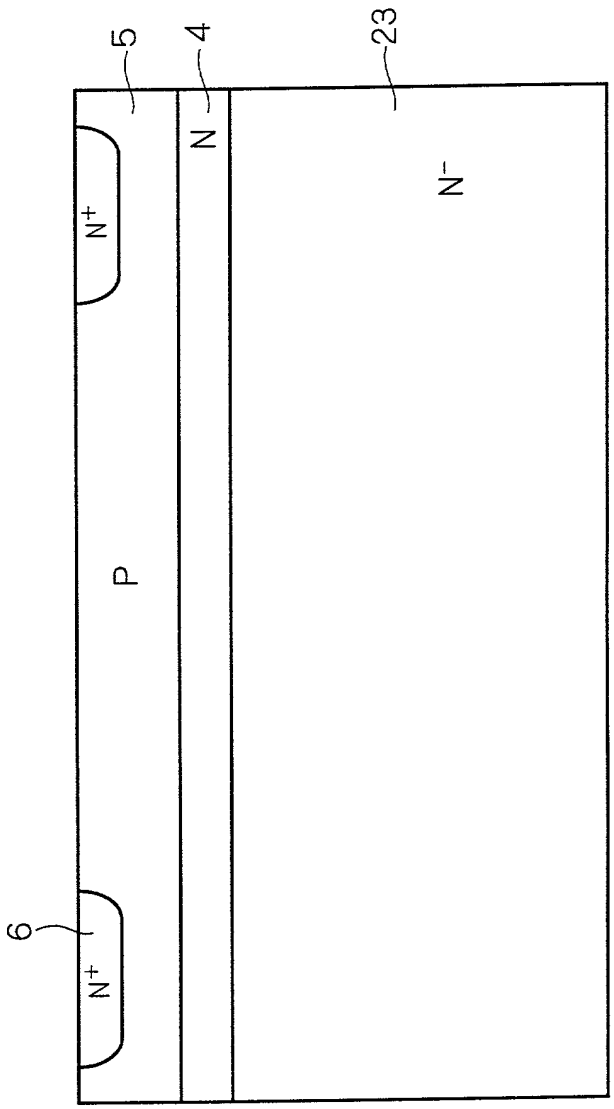


FIG. 15

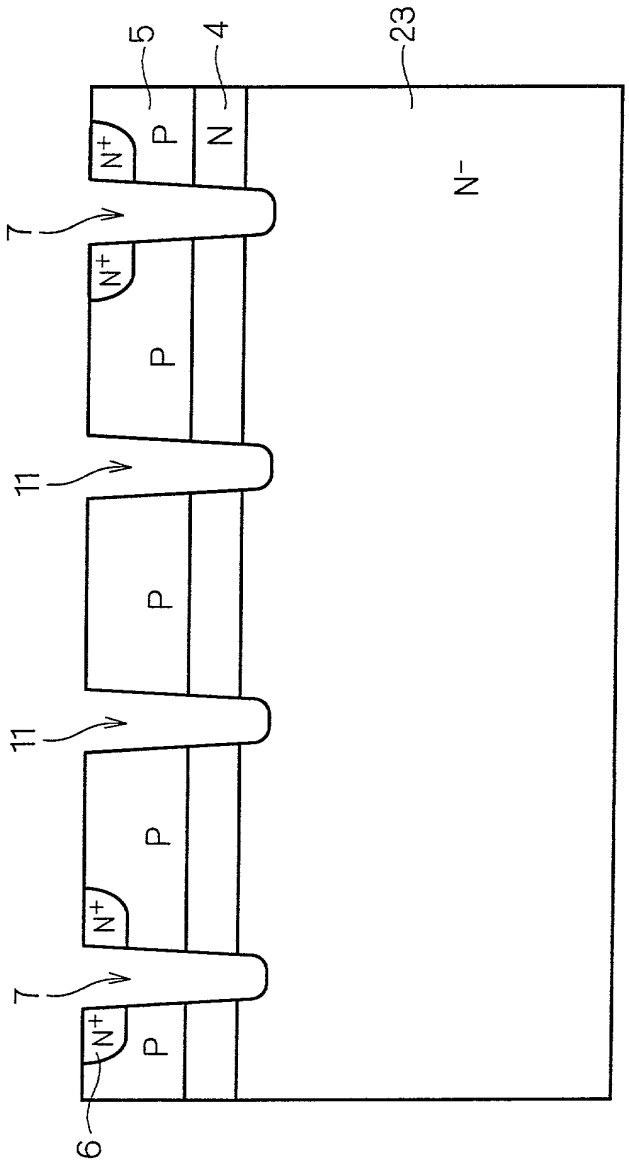


FIG. 16

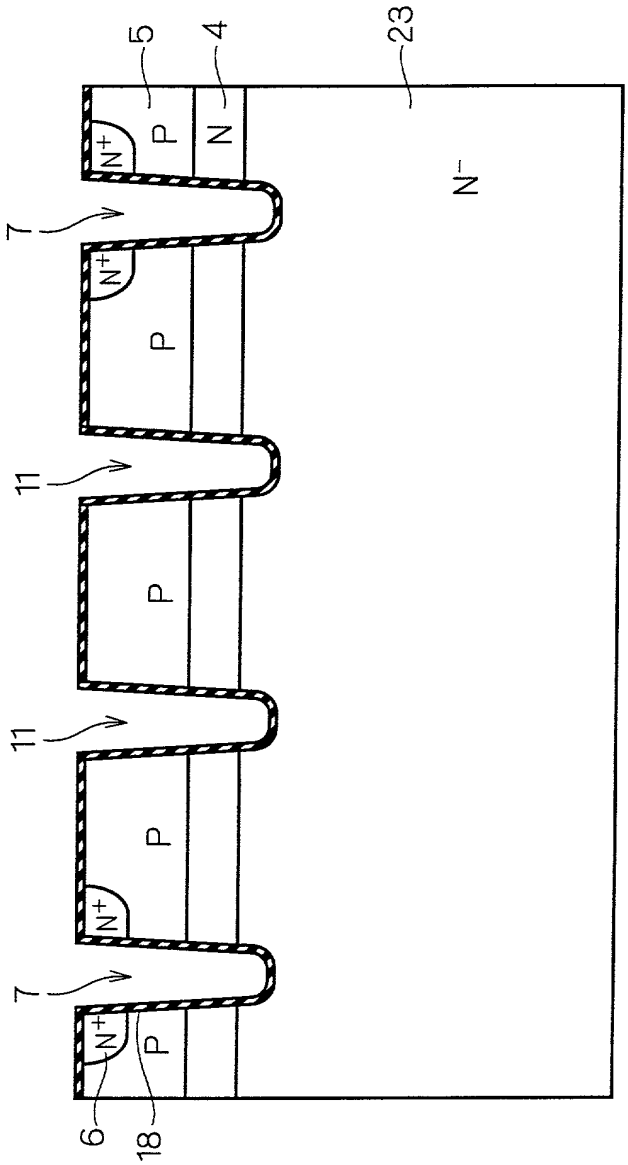


FIG. 17

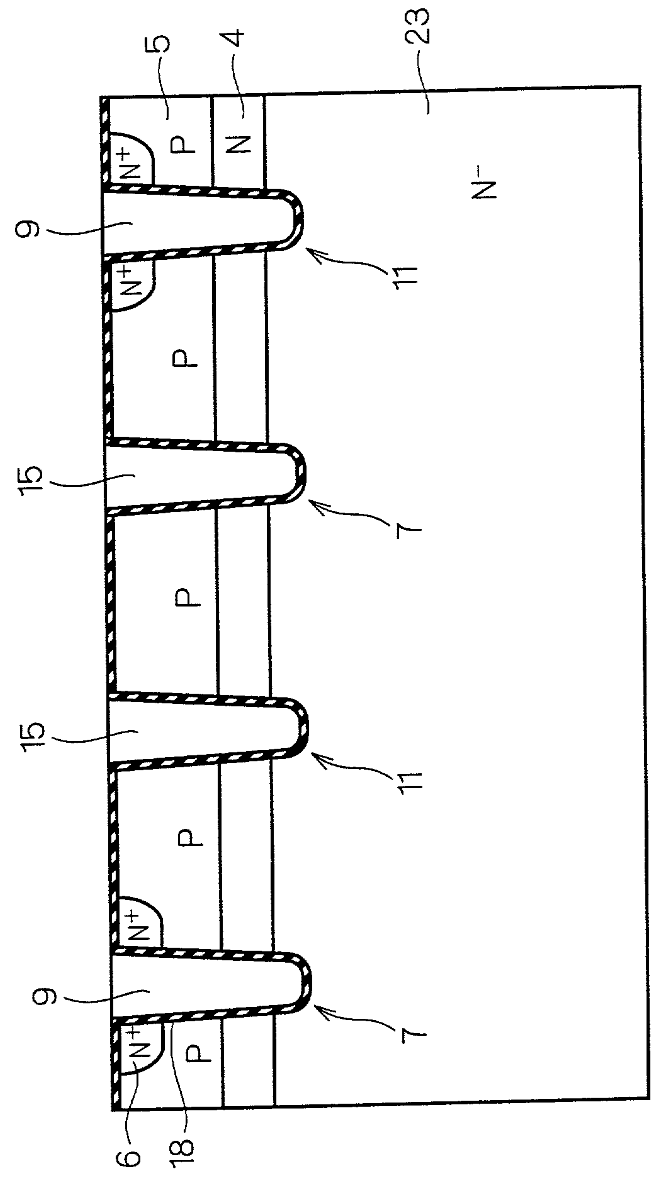
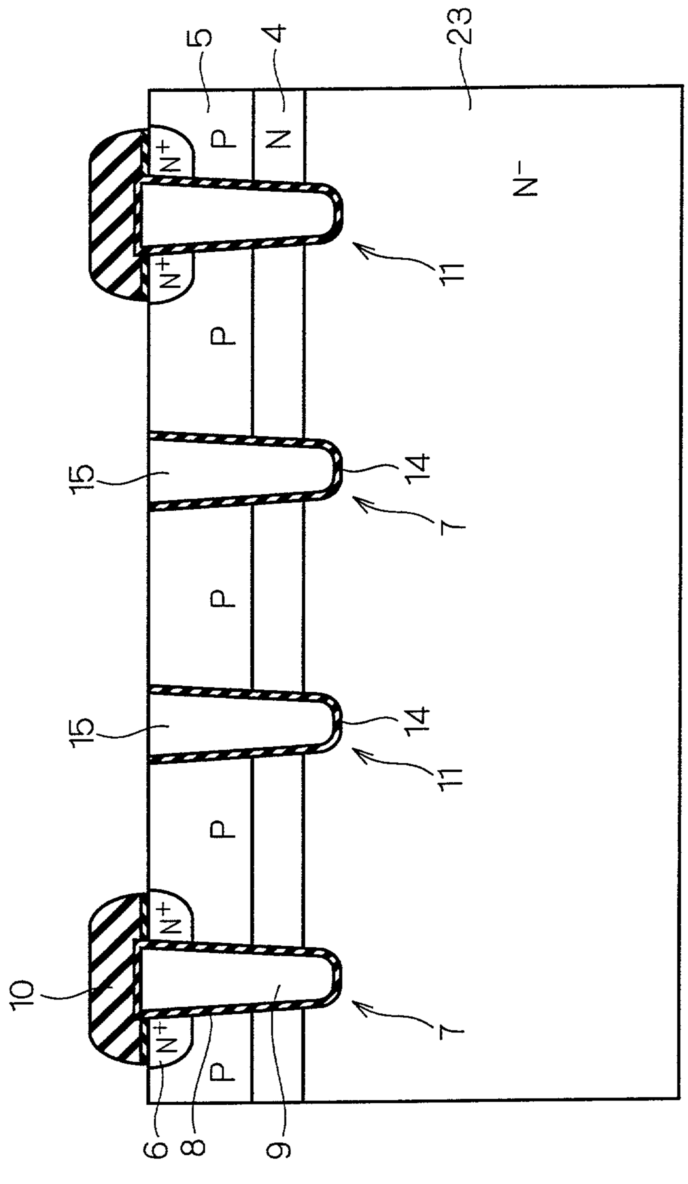


FIG. 18

FIG. 19



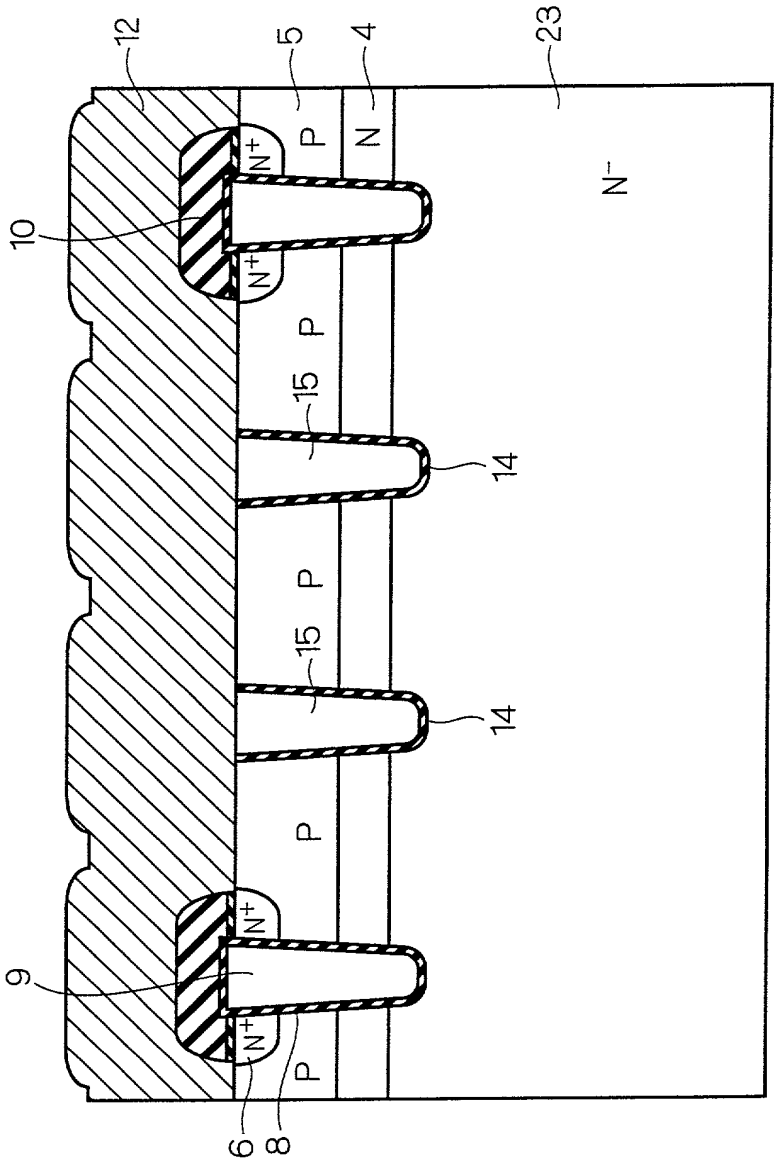


FIG. 20

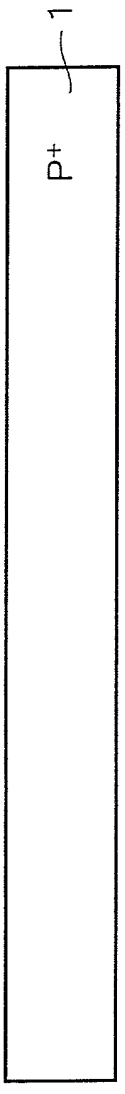


FIG. 21

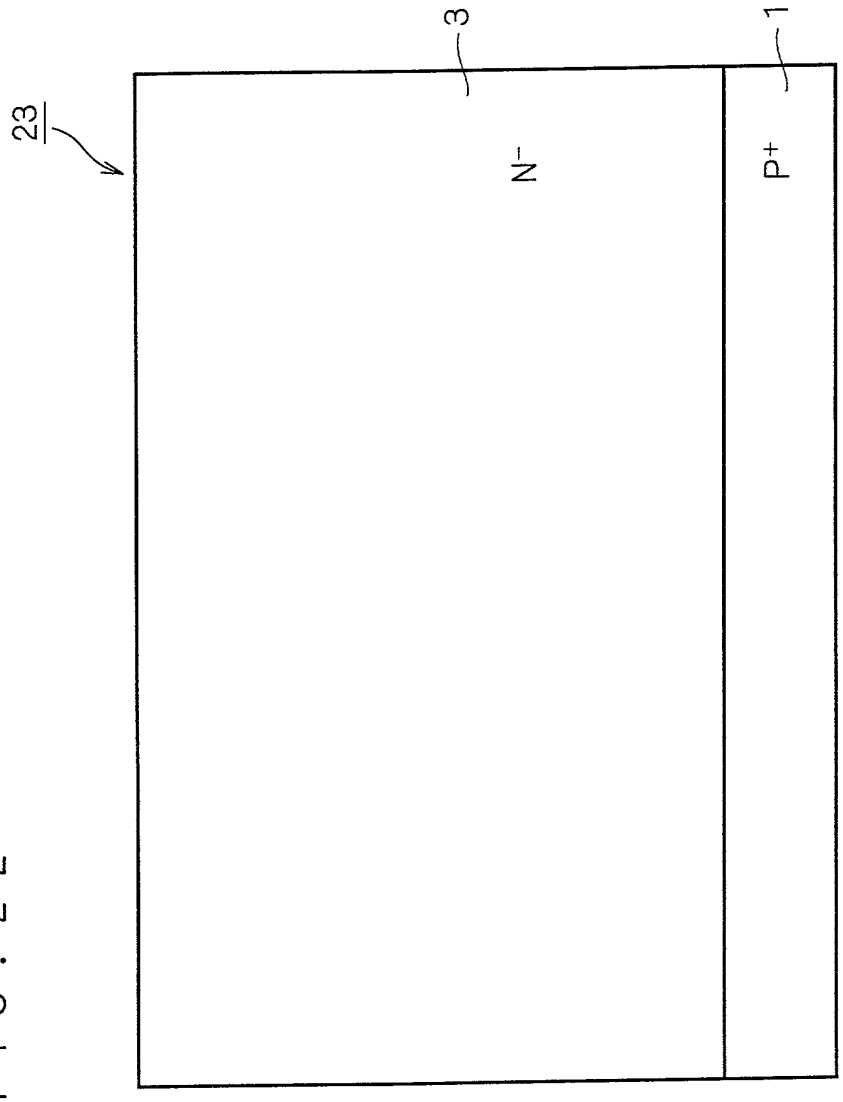


FIG. 22

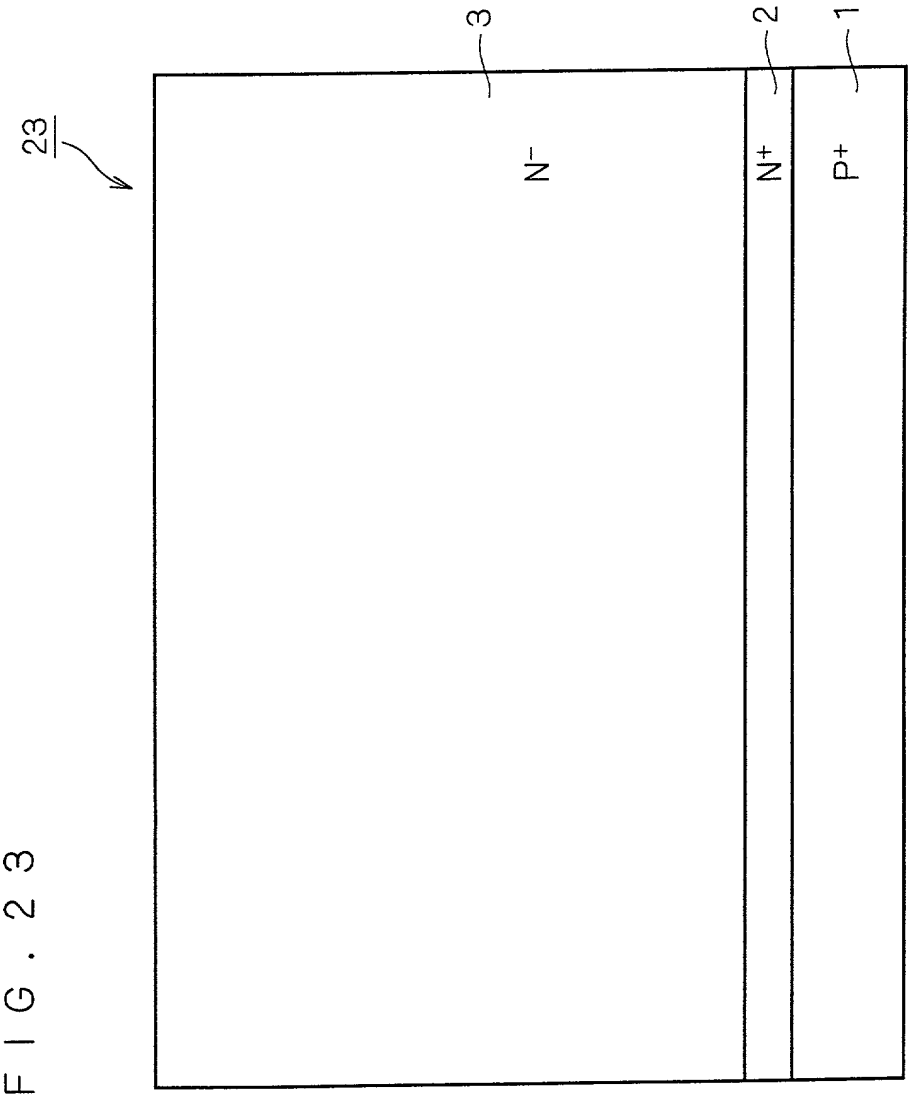


FIG. 23

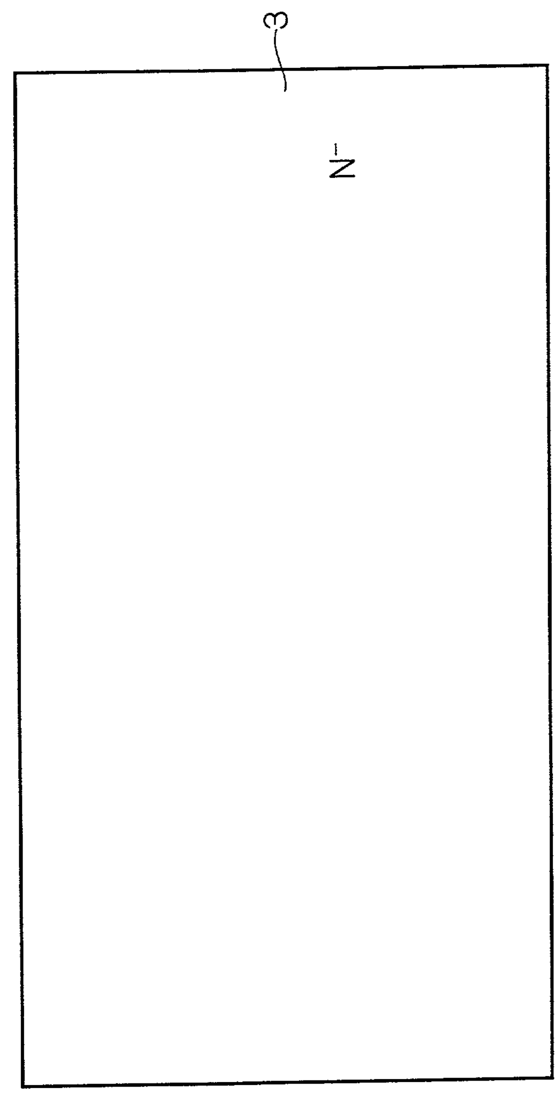


FIG. 24

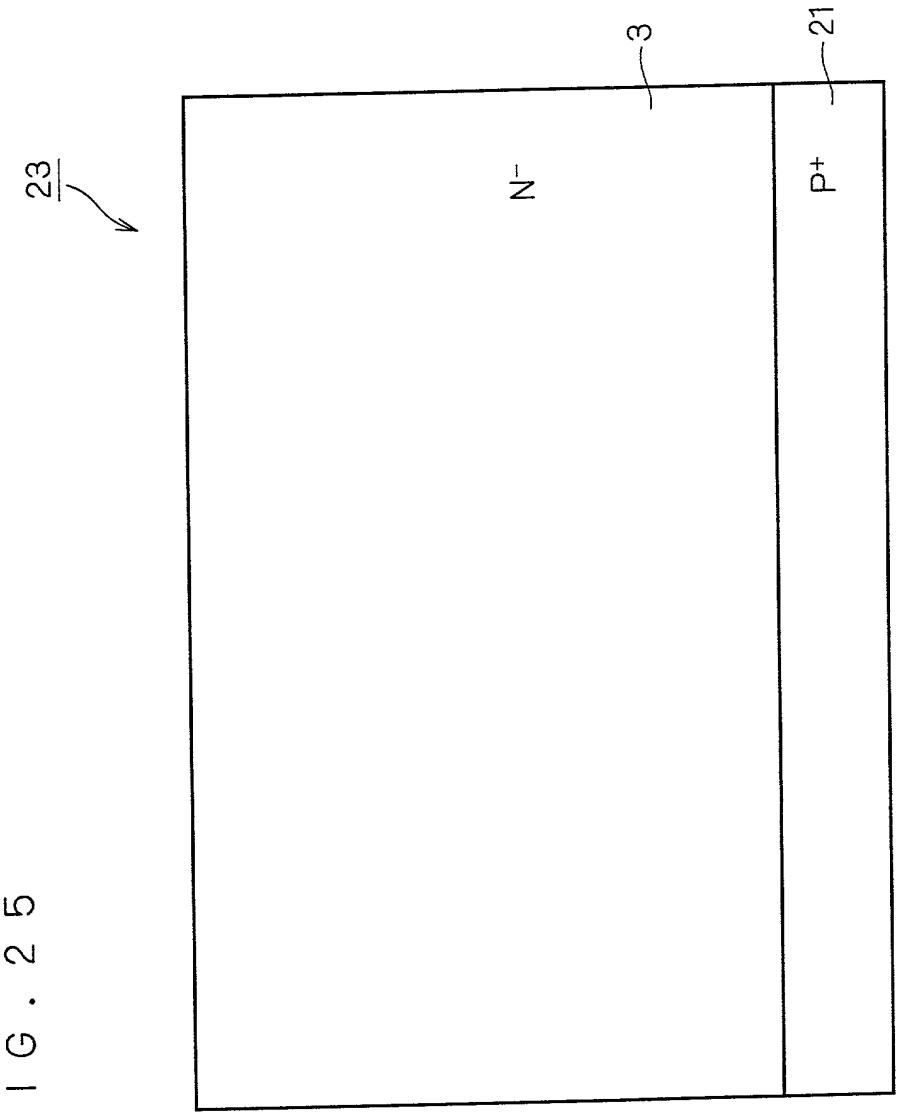


FIG. 25

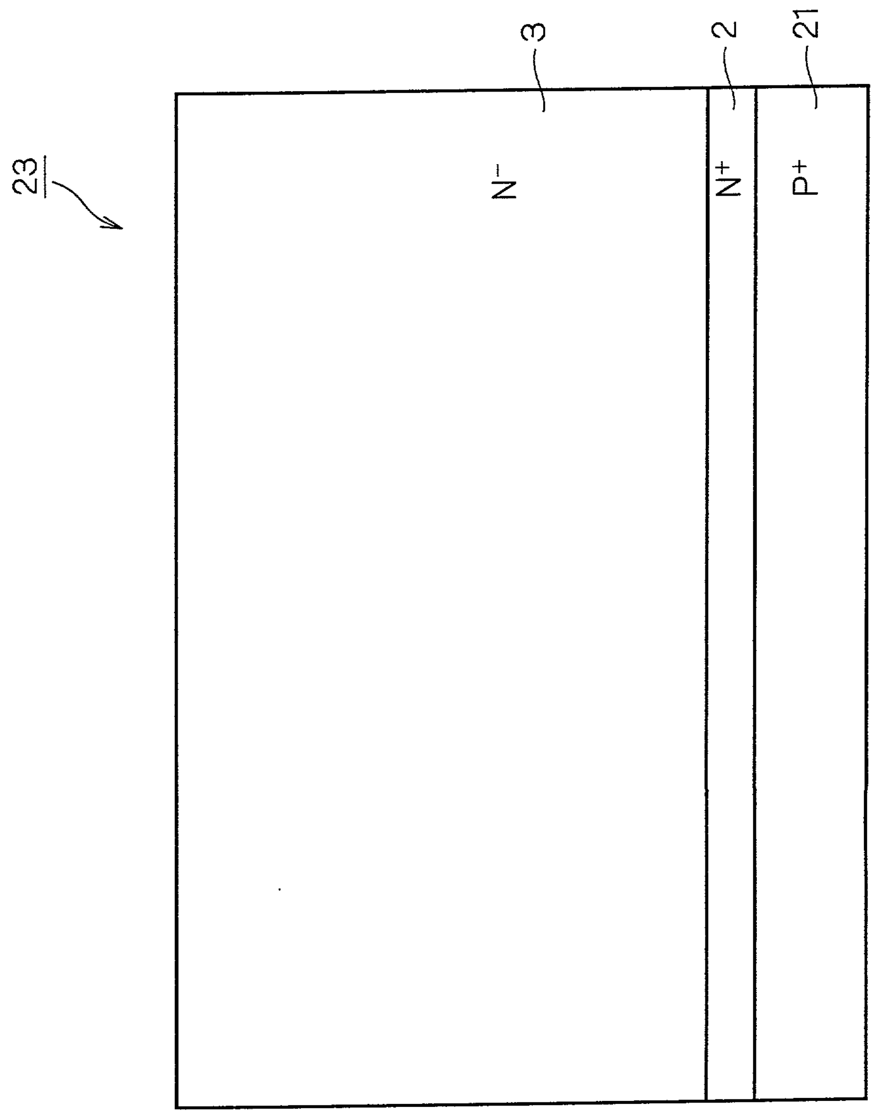


FIG. 26

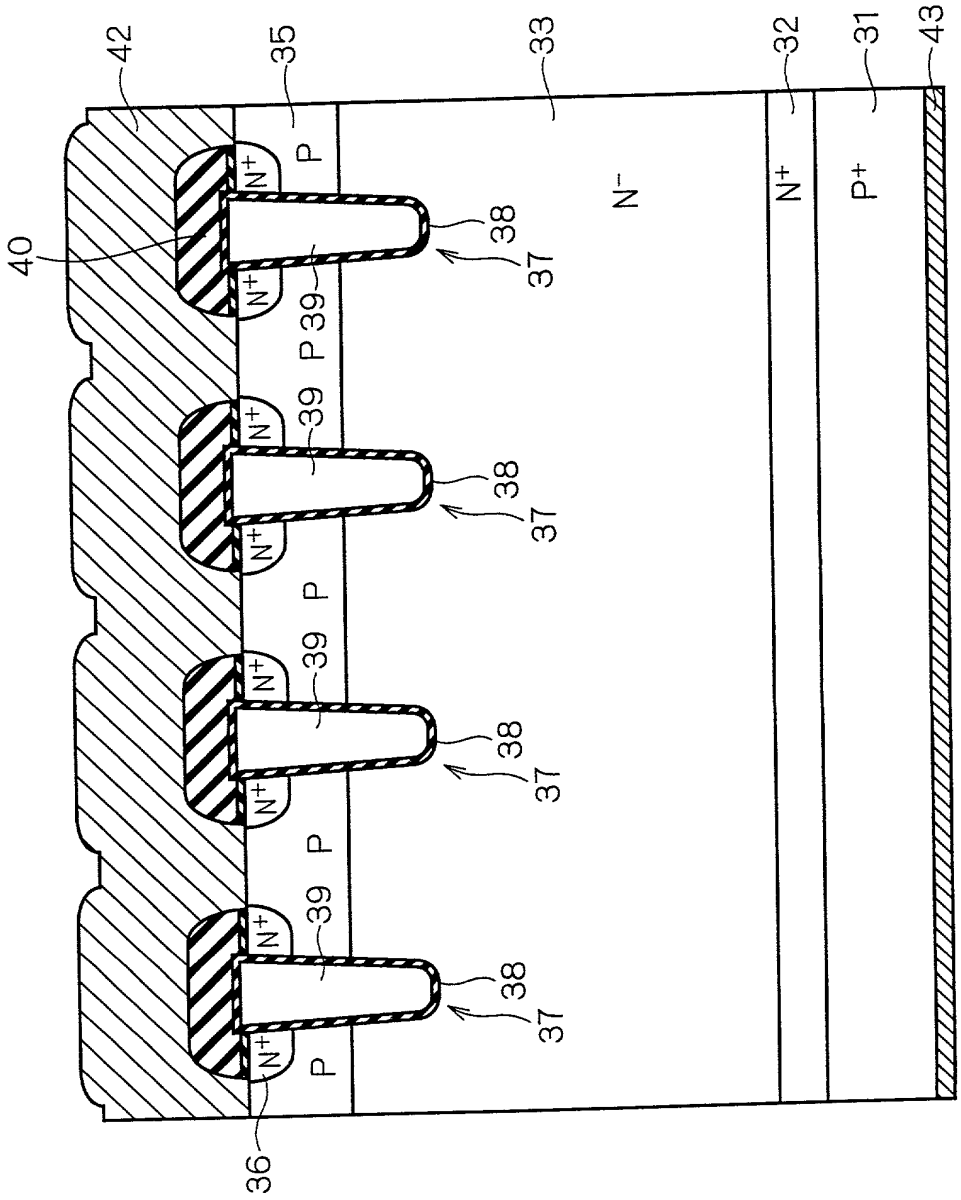


FIG. 27

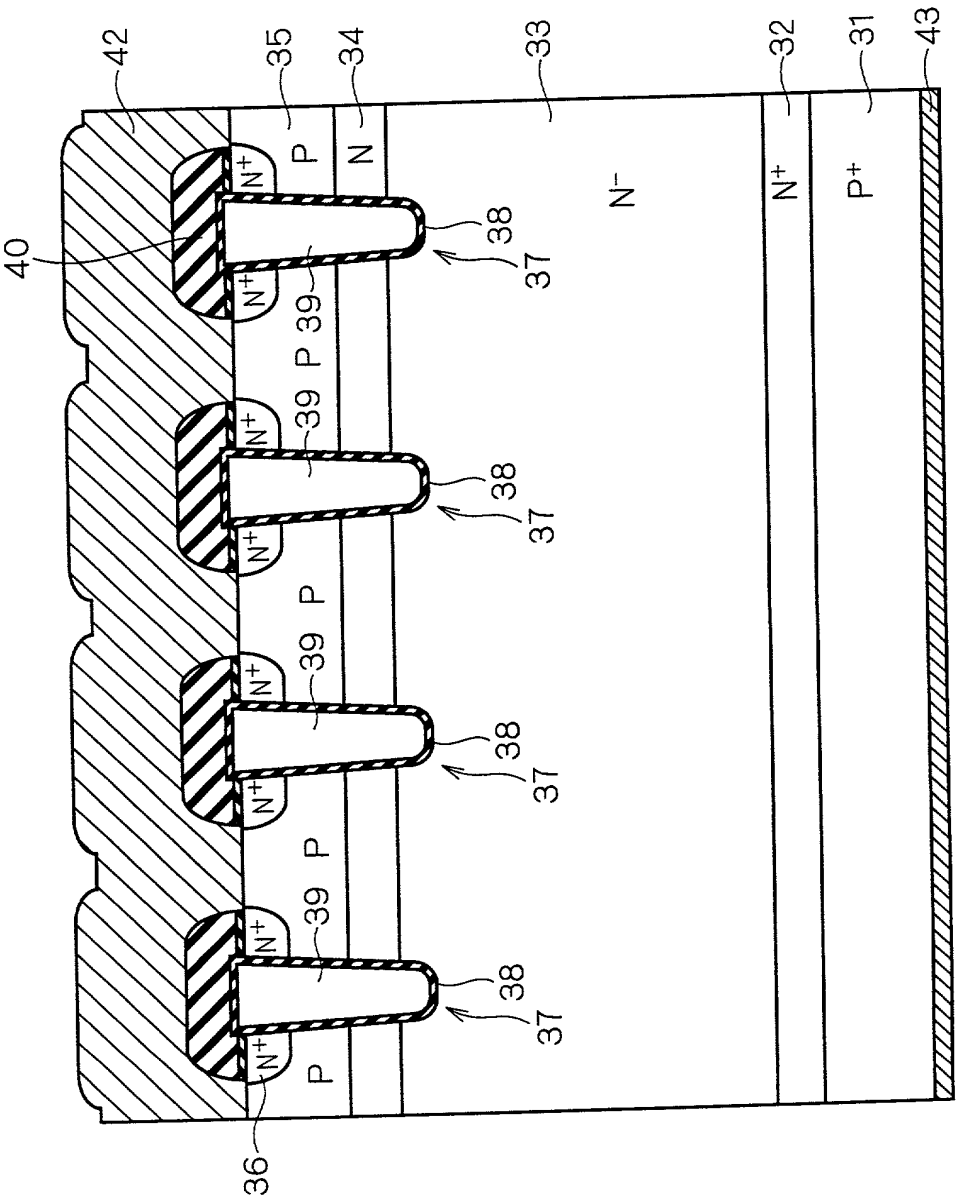


FIG. 28

FIG. 29

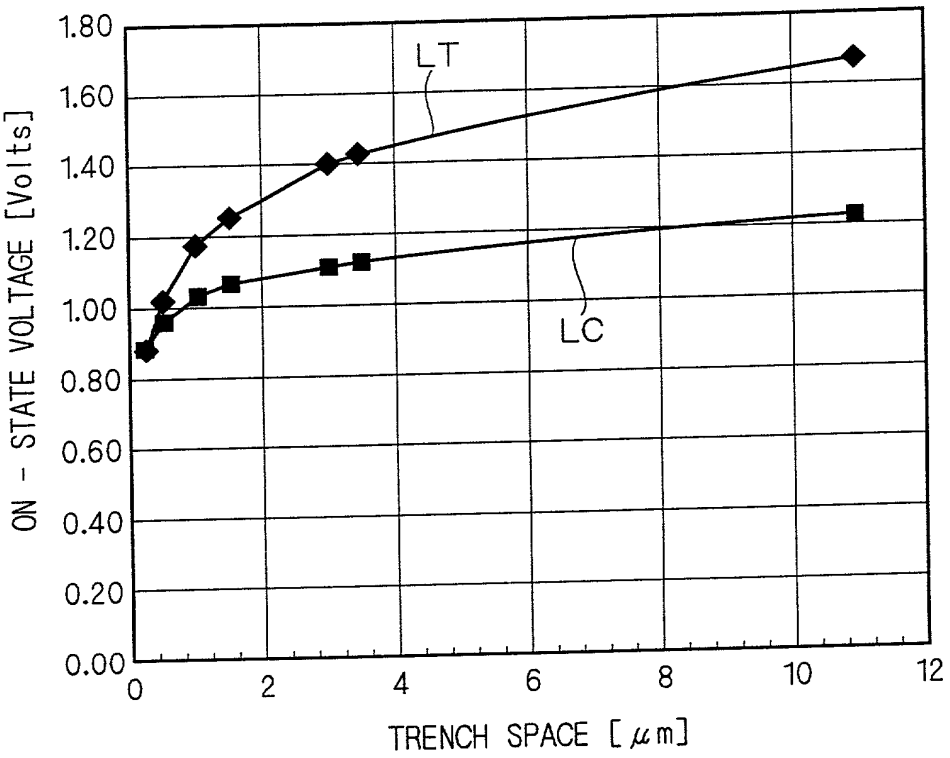

1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
ON - STATE VOLTAGE [Volts]
LT
LC
0
2
4
6
8
10
12
TRENCH SPACE [μm]

FIG. 30

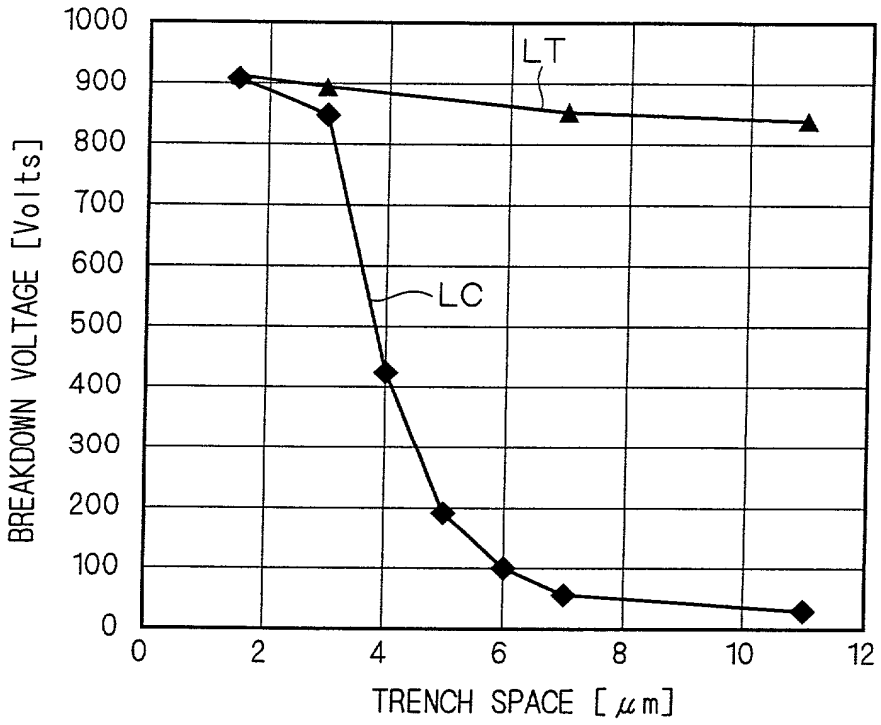
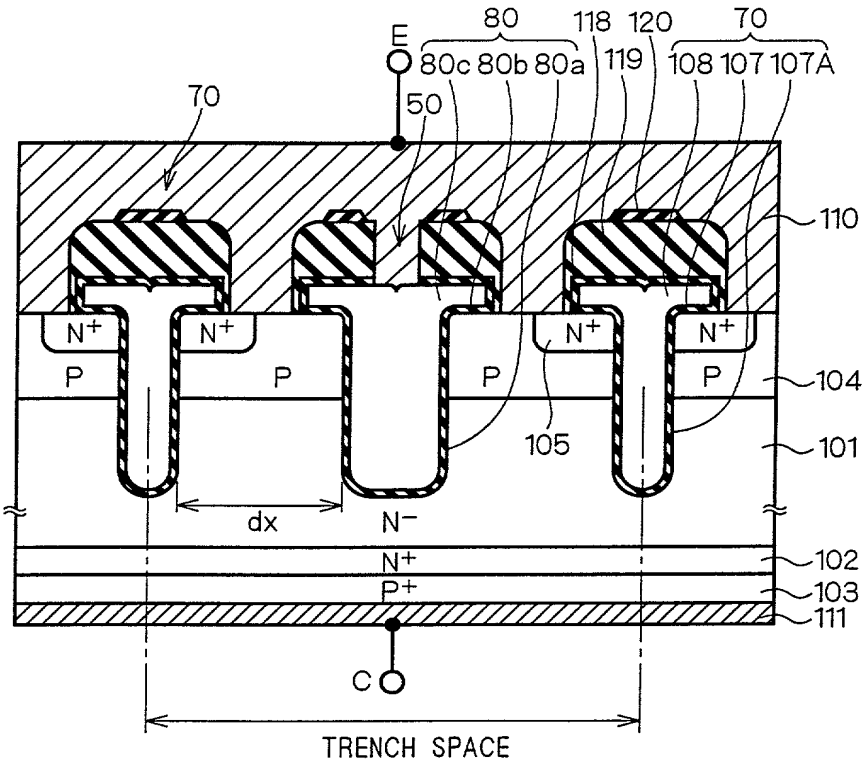

1000
900
800
700
600
500
400
300
200
100
0
BREAKDOWN VOLTAGE [Volts]
LT
LC
0
2
4
6
8
10
12
TRENCH SPACE [μm]

FIG. 31


E
80
118
120
70
80c 80b 80a
119
108 107 107A
70
50
110
N+
N+
N+
N+
P
P
P
P
104
105
101
dx
N−
N+
102
P+
103
111
C
TRENCH SPACE

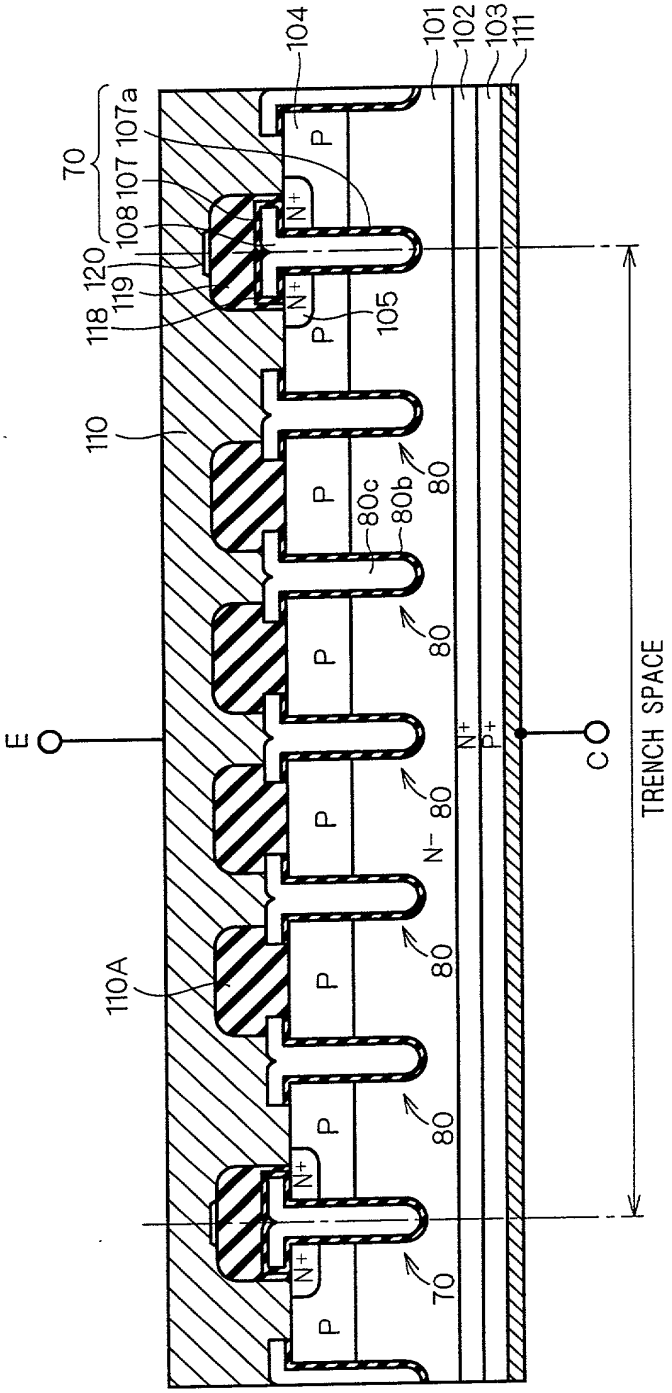

104
101
102
103
111
70
107a
107
108
120
119
118
105
110
80c
80b
80
E
C
N+
P+
N-
TRENCH SPACE
110A
P
N+

FIG. 32